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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,146	08/27/2004	Anders RYDBERG	7589.196.PCUS00	5145

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NOVAK DRUCE & QUIGG, LLP  
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SUITE 400 EAST  
WASHINGTON, DC 20005

EXAMINER

NGUYEN, NINH H

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

**Office Action Summary**

Application No.

10/711,146

Applicant(s)

RYDBERG ET AL.

Examiner

Ninh H. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-14, 18-22 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 7-9, 15-17 and 23-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/27/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3,10-12, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Chilton (1,803,995).

Chilton discloses a propeller shaft arrangement (Figs. 1-2; page 1 lines 1-10) comprising a propeller shaft (Fig. 2) having at least a portion thereof provided with a spline B adapted to achieve a rotationally fixed connection with a corresponding spline located inside a hub A of a corresponding propeller; and the spline being oriented at an oblique angle with respect to a longitudinal axis of the propeller shaft (Fig. 2; page 1, lines 50-54); wherein the spline is helically arranged on the propeller shaft (Fig. 2).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1, 4-6, 10, 13, 14, 18-22, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pichl (4,498,874) in view of Chilton.

Pichl discloses a propeller shaft arrangement (Figs. 16, 17) comprising a plurality of propeller shafts (Figs. 16, 17) each of plurality of propeller shafts having at least a portion thereof provided with a spline adapted to achieve a rotationally fixed connection with a corresponding spline located inside an adapter of a corresponding propeller (Fig. 17).

However, Pichl does not disclose the spline being oriented at an oblique angle with respect to a longitudinal axis of the propeller shaft as claimed.

Chilton teaches a propeller shaft arrangement (Figs. 1-2; page 1 lines 1-10) comprising a propeller shaft (Fig. 2) having at least a portion thereof provided with a spline B adapted to achieve a rotationally fixed connection with a corresponding spline located inside a hub A of a corresponding propeller; and the spline being oriented at an oblique angle with respect to a longitudinal axis of the propeller shaft (Fig. 2; page 1, lines 50-54); wherein the spline is helically arranged on the propeller shaft (Fig. 2).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made, to make the propeller arrangement of Pichl with the splines on either the hubs or the propeller shaft being oblique to the longitudinal axis of the shaft for the purpose of providing a connection between the propeller hub and the propeller shaft with no rotational play between the splines and grooves as taught by Chilton (page 1, lines 38-47).

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***Allowable Subject Matter***

5. Claims 7-9, 15-17, and 23-25, due to the limitation of the spline on each of the propellers is oriented at a different oblique angle with respect to the longitudinal axis of the propellers, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Prior Art***

The prior art made of record but not relied upon is considered pertinent to applicant's disclosure and consists of 1 patent.

Shipley (3,132,731) are cited to show a propeller shaft having helical splines.

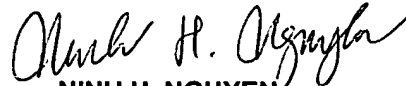
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ninh Nguyen whose telephone number is (571) 272-4823. The examiner can be normally reached on Monday-Friday from 7:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (571) 272-4820. The fax number for this group is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, please go to <http://pair-direct.uspto.gov> or contact the Electronic Business center (EBC) at 866-217-9197 (toll-free).

  
**NINH H. NGUYEN**  
**PRIMARY EXAMINER**

Nhn  
May 9, 2005